Remarks

Preliminary Matters

No Claims have been added or canceled. No additional fees are required. If determined otherwise, the Office is authorized to charge Deposit Account No. 07-1077 for the amount.

Support for the amendments comes from the section entitled "Nucleating Agent" beginning on page 9 of the specification and also the Examples and associated tables, particularly Examples 7-11 and their comparison to Comparative Examples C3-C5.

§112 Rejection

Applicant thanks the Office for a careful reading of the Claims and has amended to correct Claims 4 and 11 in their recitation that the discontinuous elastomer phase is dispersed in the continuous thermoplastic phase. Together, the two phases constitute a thermoplastic elastomer.

§ 102 Rejections

The following rejections were made.

1. Claims 1-14 using JP 08-157659 (Ehata) via machine translation with support from Drobny's article.

2. Claims 1-14 using JP 2000-095902 (Asuka) via machine translation with support from Drobny's article.

In response, Applicants have amended their claims and submit these remarks in support of those amendments.

A review of both Ehata and Asuka reveals that both disclose sodium benzoate and sorbitol derivatives as nucleating agents. Ehata also discloses a metal salt of an organic phosphorus acid. Ehata also refuses to use an inorganic system nucleating agent because it affects transparency. [Ehata 0007 and Asuka 0043-44]

Neither Ehata or Asuka discloses "an acrylic acid-grafted polypropylene, a norbornane carboxylic acid salt, or a nucleating talc. As mentioned above, Ehata shuns the use of talc, an inorganic nucleating agent.

Therefore, Applicant has amended his Claim 1 and Claim 8, from which the others depend, to recite those three members of a Markush Group, using proper Markush Group language to emphasize the "at least one nucleation agent" must come from a member of that group.

Moreover, Applicant has amended his Claim 2 and Claim 9 to further clarify his patentable invention by reciting a more detailed Markush Group arising from one or more members of the Markush Group of Claim 1 or 8, in combination with sodium benzoate and a sorbitol derivative. The two particular combinations identified in Claims 2 and 9 are amply reported for their unexpected performance in Examples 9-11. Neither Ehata nor Asuka contemplates a combination of nucleating agents of these types.

More particularly, the reason for the use of these nucleation agents is very well demonstrated by a review of Table 4 and Table 5 and the real world proof of Examples 10 and 11. Using two different types of molded article molds, the combination of nucleation agents allowed for a "fast molding grade" with cycle time reported in Table 4. The comparison in Table 5 shows a **22% reduction in cycle time**: Example 10 vs. Comparative Example C4. Moreover, the improvement was also apparent over other commercially available unmodified thermoplastic elastomer grades with unexpected consistency of at least 22% reduction in cycle time.

Ehata and Asuka may be selecting nucleating agents to help with clarifying and retaining as much transparency as possible for their thermoplastic products, but Applicant goes to the heart of every polymer engineer: *make the same or better product **faster**.*

For these reasons, Claims 1-14 are both novel and inventive over either of Ehata or Asuka.

Applicant requests a Notice of Allowance for Claims 1-14, as amended. If there is any obstacle to a Notice of Allowance, please contact the undersigned. If a telephonic interview would assist the examination process, as recently suggested by Commissioner Doll, the undersigned is most willing to help arrange and participate in a telephonic interview.

Respectfully submitted by:

October 28, 2008
Date

John H. Hornickel
Registration No. 29,393

PolyOne Corporation
33587 Walker Road
Avon Lake, Ohio 44012

Telephone: 440-930-3317
Fax: 440-930-3830
John.Hornickel@PolyOne.com